

Work Order ID 55862



Page 1

February 3, 2010 1:10:24 PM

Item ID: D4005-1

Accept



Setup Start



Revision ID:

Item Name: Aft Restraint Angle/Fuel Gutter

Stop



Start Date: 2/03/10 Start Qty: 2.00



Cust Item ID:

Required Date: 2/10/10 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan:



Date: 02-203

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr	Revision Nbr
D4005	A-PRELIM <i>02/03</i> Now Rev A <i>02/03</i>

100

Waterjet

FLOW CNC Waterjet

*2004 .063*

Memo

0.00

*RB 10-2-4*

*(2)*

1-Cut as per Dwg

Dwg Rev: *PL*  
Prog Rev: *LM*

2-Deburr if necessary

110

QC2- Inspect parts off machine FAI/FAIB

0.00

*RB 10-2-4*

QC

Memo

0.00

Quality Control

*PRELIMINARY* *02/03* *02/03*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 55862**

February 3, 2010 1:10:24 PM



Page 2

Item ID: D4005-1

Accept



Setup Start



Revision ID:

Item Name: Aft Restraint Angle/Fuel Gutter

Stop



Start Date: 2/03/10 Start Qty: 2.00



Cust Item ID:

Required Date: 2/10/10 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

120



QC

QC8- Inspect parts - second check

0.00

=&gt; S10204

(X2)

Quality Control

130



Brake NC

Bend as per dwg

0.00

Srs colo2/09

(2)

Brake NC

Memo

0.00

140 5

Qc5 inspect work to corrects S10204

(X2)

150



HandFinish

Chemical Conversion Coat per QSI005 4.1

0.00

BR 10-02-10

(2)

Hand Finishing

Memo

0.00

155

MNO.08.25

powder coat as per  
dwgStart 1:00pm  
oven temp 320°  
Finish: 1:30pm

BR 10-02-10.

X2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 55862**

Page 3

February 3, 2010 1:10:24 PM

Item ID: D4005-1

Accept



Setup Start



Revision ID:

Item Name: Aft Restraint Angle/Fuel Gutter

Stop



Start Date: 2/03/10 Start Qty: 2.00



Cust Item ID:

Required Date: 2/10/10 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160



QC

Quality Control

QC5- Inspect part completeness to step on W/O

QC3

Memo

0.00

10-02-10

(X2)

0

0.00



170



Packaging

Packaging

Identify as per dwg &amp; Stock Location:

0.00



180



QC

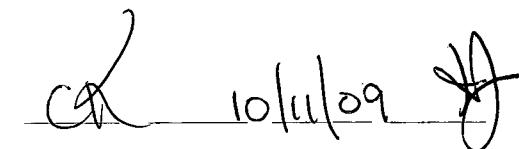
Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00



POSITIVE RECALL

EFFECTIVE 10-02-03 AUTH J

RELEASED J DATE 10-06-28 Q4Y2

MF  
10-2-14

W/O: 55862

## WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/06/28	161	<p>Install abrasion strip 02856-100-11 per drawing Rev A B 37 638</p> <p>+ QCS - Sulfur (F)</p>	E.P.	10/11/09 11:00	2	10/06/28	10/06/28
		Add above info per drawing Rev A				10/06/28	10/06/28

Part No: D4005-1 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date &amp; initial all entries

# Picklist Print

Page 1

February 3, 2010 1:10:29 PM

Work Order ID: 55862



Parent Item: D4005-1



Parent Item Name: Aft Restraint Angle/Fuel Gutter

Start Date: 2/03/10

Required Date: 2/10/10

Comments: IPP rev A 10.01.21 new issue Prelim EC verified by:DD

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M2024T3S.063		Purchased		No		100	sf	214.3696	0.2902		LB 10-2-4	

2024-T3 .063 sheet

## Warehouse

### Location

#### Main Warehouse

MAT	214.3696242	
102942	1.5	
105916	1.09	
109463	0.00947368	
110980	5.4854	
111787	12.2847505	
113866	96	113866
113867	96	
19059	2	

(2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	55862
Description: ACT RESTRAINT ANGLE / FUEL GLITTEN	Part Number:	D4005-1
Inspection Dwg: D4005-1 Rev: PRE (in P2)		Page 1 of 1

## **FIRST ARTICLE INSPECTION CHECKLIST**

## X First Article Prototype

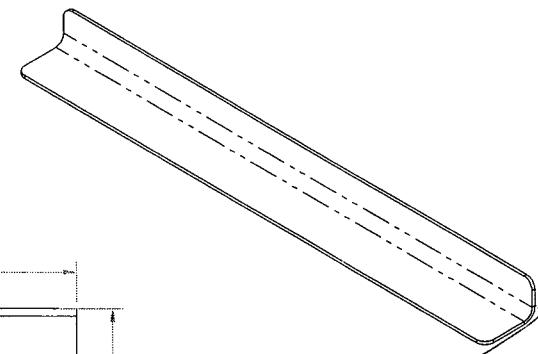
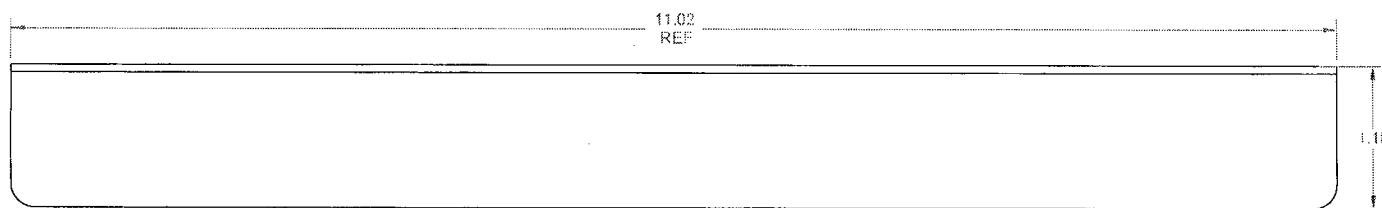
Measured by:	HS	Audited by:	S	Prototype Approval:	N/A
Date:	10-2-4	Date:	10/02/04	Date:	N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

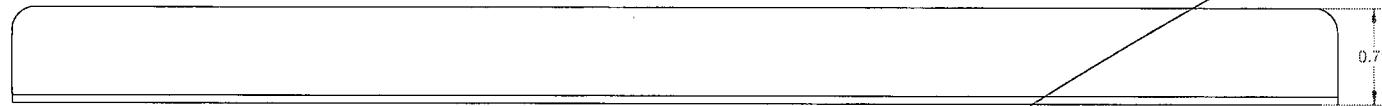
1006-28 Rev. A

DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4005-1	JCA-M47-2-03

WU  
55862



See Rev A



D4005-1 AFT RESTRAINT ANGLE/FUEL GUTTER

**PRELIMINARY ISSUE**

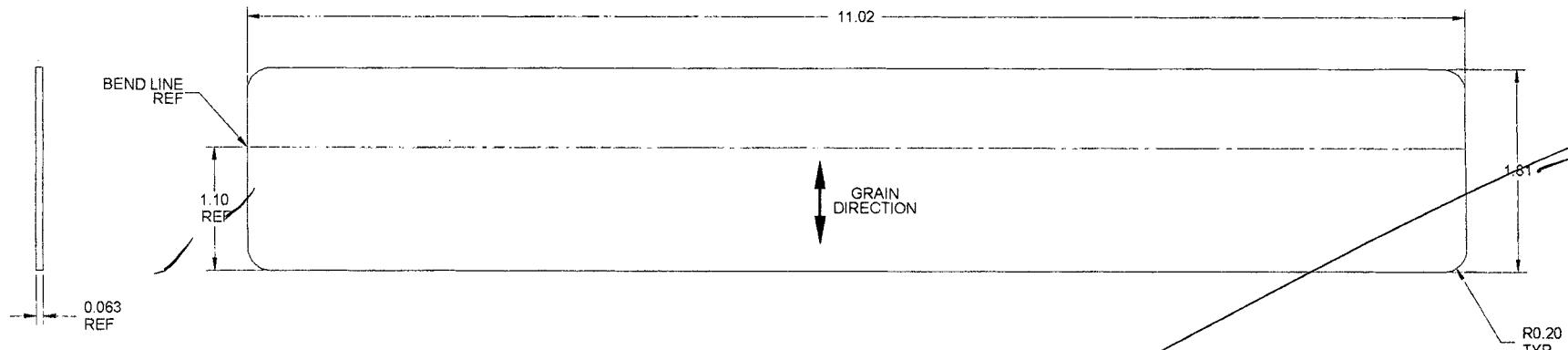
09.10.19

NOTES:

- 1) MATERIAL: MADE FROM D4005-1F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4005-1" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.12 lbs

DESIGN	5	DART AEROSPACE LTD
DRAWN	5	HAWKESBURY, ONTARIO, CANADA
CHECKED	13	DRAWING NO.
MFG. APPR.	2	REV. PA1
APPROVED	14	SHEET 2 OF 15
DE APPR.	14	SCALE
DATE 09.10.19		NTS
FORWARD RESTRAINT		

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D4005-1F FLAT PATTERN

See Rev A

NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.063 THICK PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209 REF DART SPEC M2024T3S.063
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.12 lbs

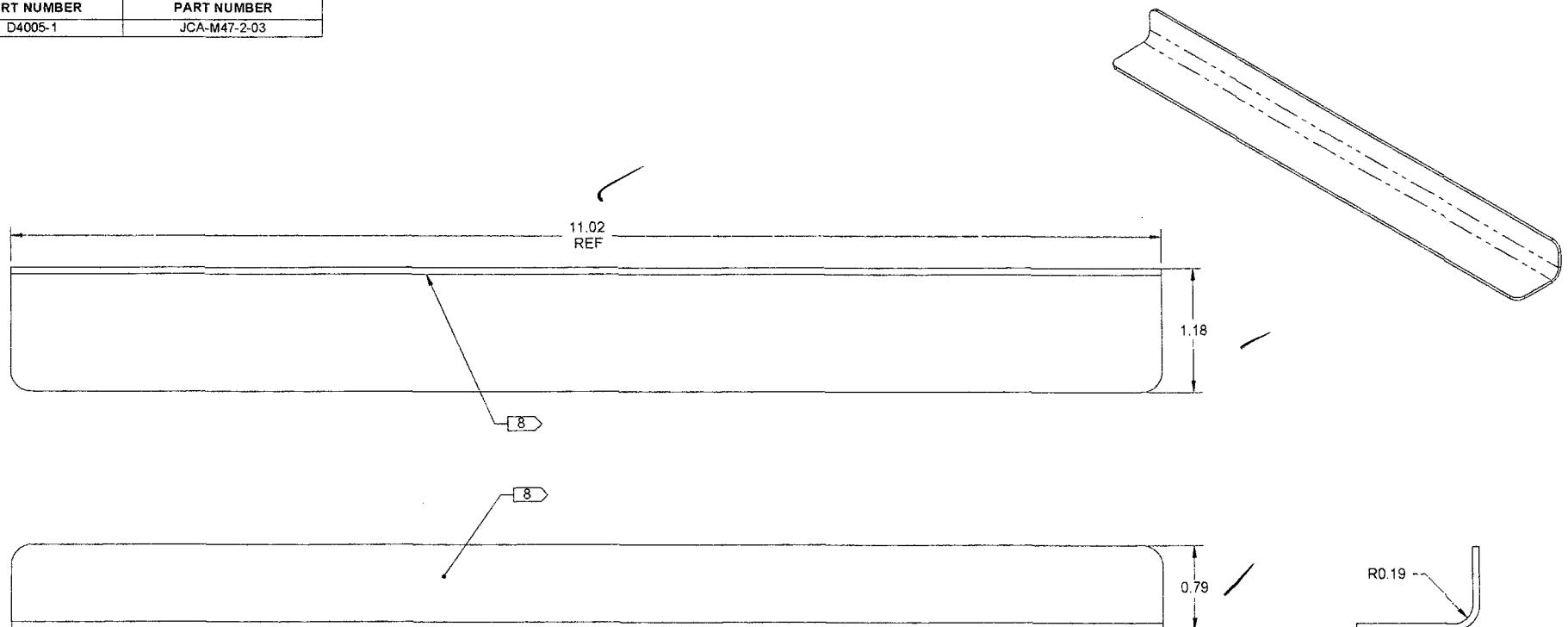
**PRELIMINARY ISSUE**

09.10.19

DESIGN  
 DRAWN  
 CHECKED  
 MFG. APPR.  
 APPROVED  
 DE APPR.  
 DATE 09.10.19

DART AEROSPACE LTD  
 HAWKESBURY, ONTARIO, CANADA  
 DRAWING NO.  
 D4005  
 REV. PA1  
 SHEET 3 OF 15  
 TITLE FORWARD RESTRAINT  
 SCALE NTS  
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DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4005-1	JCA-M47-2-03



D4005-1 REAR RESTRAINT ANGLE GUTTER

NOTES:

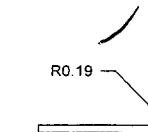
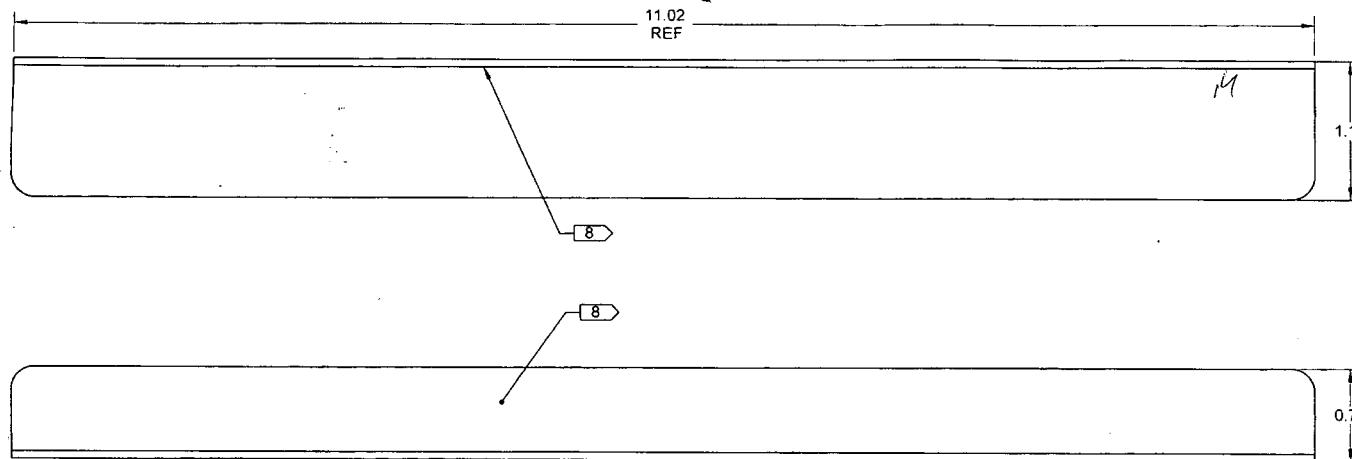
- 1) MATERIAL: MADE FROM D4005-1F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT "GREY SANTEX" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4005-1" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.12 lbs
- 8) COVER THIS SURFACE WITH D2856-100-11 ABRASION STRIP. TRIM EXCESS

DESIGN  
DRAWN  
CHECKED  
MFG. APPR.  
APPROVED  
DE APPR.  
DATE 10.02.05

*See Rev A*  
DART AEROSPACE LTD  
HAWKESBURY, ONTARIO, CANADA  
DRAWING NO. REV. A  
D4005 SHEET 2 OF 15  
TITLE RESTRAINT  
SCALE NTS

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DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4005-1	JCA-M47-2-03



D4005-1 REAR RESTRAINT ANGLE GUTTER

RELEASED  
2010-05-05  
W/055862

**NOTES:**

- 1) MATERIAL: MADE FROM D4005-1F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT "GREY SANTEX" (4.3.5.6) PER DART QSI 005 4.3 ←
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4005-1" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.12 lbs
- 8) COVER THIS SURFACE WITH D2856-100-11 ABRASION STRIP. TRIM EXCESS

DESIGN	<i>1</i>	DART AEROSPACE LTD
DRAWN	<i>1</i>	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>1</i>	REV. A
MFG. APPR.	<i>1</i>	DRAWING NO.
APPROVED	<i>1</i>	D4005
DE APPR.	<i>1</i>	SCALE
DATE	10.02.05	NTS

**W/055862**

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8

7

6

5

4

3

2

1

D

D

C

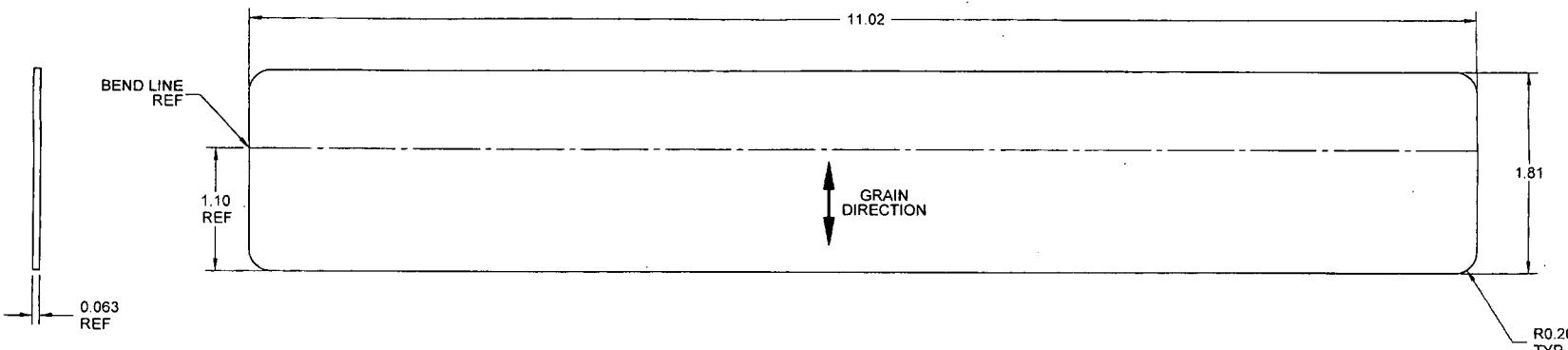
C

B

B

A

A



D4005-1F FLAT PATTERN

RELEASED  
2010-05-05  
NP

W10 SJ 862

NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.063 THICK  
PER QQ-A-250/4 OR AMS-CQ-A-250/4  
OR AMS 4037 OR ASTM B209  
REF DART SPEC M2024T3S.063
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.12 lbs

8 1 7 1 6 1 5 1 4 1 3 1 2 1

DESIGN	<i>BS</i>	DART AEROSPACE LTD
DRAWN	<i>BS</i>	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>BS</i>	REV. A
MFG. APPR.	<i>BS</i>	DRAWING NO.
APPROVED	<i>BS</i>	D4005 SHEET 3 OF 15
DE APPR.	<i>BS</i>	SCALE
DATE	10.02.05	NTS
RESTRAINT		
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